

## ABSTRACT OF THE DISCLOSURE

An optical disk has a lead-in region provided at the inner circumference side and a user region provided at the outer circumference side. Pit string 3 of pits of different depths is formed in the lead-in region. Light beam reflected from the pit string is detected by detector and TPP and RF signals are output by differential amplifier and addition amplifier. A ternary signal is restored from pits based on the TPP and RF signals. Information is recorded by pits of the same depth in the user region. Recording information in the depth direction in the lead-in region increases the recording capacity thereof. The information recorded in the depth direction in the lead-in region cannot be transferred to a user region of another optical disk.